

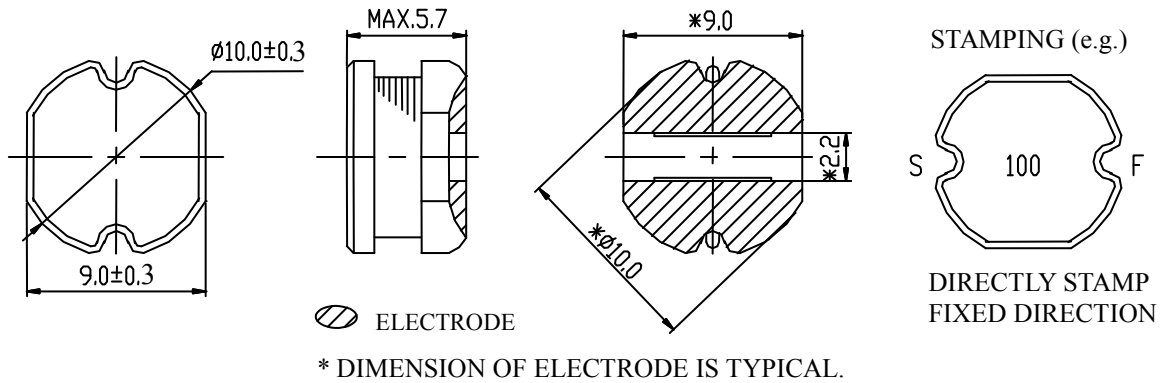


# SMD POWER INDUCTORS

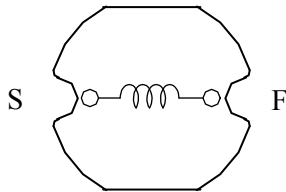
TYPE  
DA105NP

## SPECIFICATIONS

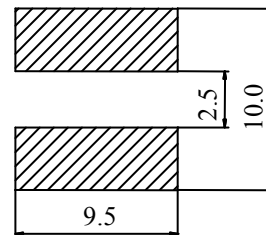
### 1. DIMENSION (UNIT: mm)



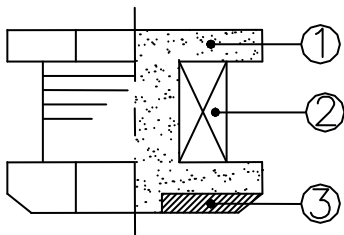
### 2. CONNECTION



### 3. RECOMMENDED LAND PATTERN (UNIT: mm)



### 4. CONSTRUCTION:



No.	NAME	MATERIAL
1	DRUM CORE	FERRITE CORE OR EQUIVALENT
2	WIRE	POLYURETHANE ENAMELLED COPPER WIRE
3	ELECTRODE	Ag-Pd PLATING + SOLDER



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## 5. ELECTRICAL CHARACTERISTICS

No.	PART No.	STAMP	INDUCTANCE ( $\mu$ H) WITHIN	D.C.R. ( $\Omega$ ) MAX.	RATED CURRENT MAX. (A) ※	SRF (MHz) (TYP)
01	DA105NP-100M	100	10 $\pm$ 20%	40m	3.50	27
02	DA105NP-120M	120	12 $\pm$ 20%	50m	3.03	23
03	DA105NP-150M	150	15 $\pm$ 20%	60m	2.87	20
04	DA105NP-180M	180	18 $\pm$ 20%	70m	2.48	18
05	DA105NP-220M	220	22 $\pm$ 20%	80m	2.32	17
06	DA105NP-270M	270	27 $\pm$ 20%	100m	2.06	14
07	DA105NP-330M	330	33 $\pm$ 20%	110m	1.82	13
08	DA105NP-390M	390	39 $\pm$ 20%	120m	1.68	12
09	DA105NP-470K	470	47 $\pm$ 10%	150m	1.54	10
10	DA105NP-560K	560	56 $\pm$ 10%	170m	1.44	9
11	DA105NP-680K	680	68 $\pm$ 10%	210m	1.27	9
12	DA105NP-820K	820	82 $\pm$ 10%	240m	1.18	8
13	DA105NP-101K	101	100 $\pm$ 10%	330m	1.05	7
14	DA105NP-121K	121	120 $\pm$ 10%	370m	0.95	6
15	DA105NP-151K	151	150 $\pm$ 10%	430m	0.88	6
16	DA105NP-181K	181	180 $\pm$ 10%	580m	0.79	5
17	DA105NP-221K	221	220 $\pm$ 10%	650m	0.73	5
18	DA105NP-271K	271	270 $\pm$ 10%	880m	0.64	4
19	DA105NP-331K	331	330 $\pm$ 10%	1.05	0.60	4
20	DA105NP-391K	391	390 $\pm$ 10%	1.20	0.54	4
21	DA105NP-471K	471	470 $\pm$ 10%	1.30	0.50	3
22	DA105NP-561K	561	560 $\pm$ 10%	1.70	0.46	3
23	DA105NP-681K	681	680 $\pm$ 10%	2.00	0.42	3
24	DA105NP-821K	821	820 $\pm$ 10%	2.25	0.39	3

\* TESTING INSTRUMENT

INDUCTANCE: HP 4284A OR EQUIVALENT.

D.C.R.: HP-34420A OR EQUIVALENT.

RATED CURRENT: HP 4284A, HP 42841A, HP E3632A, HP 34401A OR EQUIVALENT.

SRF: HP 4291B OR EQUIVALENT.

\* TESTING CONDITION

INDUCTANCE: at 1 kHz/1.0V

D.C.R. : at 20°C

※ RATED CURRENT: THE VALUE OF DIRECT CURRENT WHEN THE INDUCTANCE IS 10% LOWER THAN IT'S INITIAL VALUE AT DC SUPERPOSITION OR WHEN COIL TEMPERATURE RISE  $\Delta T=40^{\circ}\text{C}$ , WHICHEVER IS SMALLER ( $T_a=20^{\circ}\text{C}$ ).



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## 6. GENERAL CHARACTERISTICS

**\* STANDARD TESTING CONDITIONS:**

UNLESS OTHERWISE SPECIFIED, THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MEASUREMENTS AND TESTS ARE AS FOLLOWS: AMBIENT TEMPERATURE: 15°C ~ 35°C.

RELATIVE HUMIDITY: 25% ~ 85%. AIR PRESSURE: 86kPa ~ 106kPa.

IF THERE IS ANY DOUBT ABOUT THE RESULTS, MEASUREMENT SHALL BE MADE WITHIN THE FOLLOWING LIMITS: AMBIENT TEMPERATURE: 20°C±1°C. RELATIVE HUMIDITY: 63% ~ 67%.

AIR PRESSURE: 86kPa ~ 106kPa.

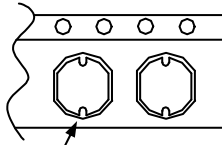
TYPE

**DA105NP**

No.	ITEMS	CONDITIONS	SPECIFICATION
1	OPERATION TEMPERATURE  STORAGE TEMPERATURE		-25 ~ +85°C (INCLUDING COIL TEMPERATURE RISE) -40 ~ +85°C
2	TEMPERATURE COEFFICIENT	-40 ~ +85°C	0 ~ 2000 ppm/°C
3	FIXING STRENGTH	SAMPLE IS PUSHED IN THREE DIRECTIONS OF X, Y AND Z WITH FORCE OF 10N FOR 60±5 SECONDS. AFTER SOLDERING BETWEEN COPPER PLATE AND ELECTRODES.	NO ELECTRODE DETACHMENT.
4	RESISTANCE TO SOLDERING HEAT TEST	PLEASE REFER TO THE ATTACHMENT STD-002NP.	NO MECHANICAL BREAKAGE. DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±5.0%
5	SOLDER ABILITY TEST	IMMERSE THE ELECTRODE IN FLUX FOR 5 SECONDS. THEN DIP THE ELECTRODE INTO A SOLDERING BATH OF 245±5°C FOR 2±0.5 SECONDS.	OVER 90% OF THE SURFACE BEING IMMersed SHALL BE COVERED WITH NEW SOLDER UNIFORMLY.
6	VIBRATION TEST	AMPLITUDE: 1.5mm P≥-P FREQUENCY: 10 ~ 55 ~ 10Hz (1 MINUTE PER CYCLE) DURATION: 2 HOURS IN EACH OF X.Y.Z AXIS. (TOTAL 6 HOURS)	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±2.0%
7	SHOCK TEST	PEAK ACCELERATION: 981m/s <sup>2</sup> DURATION OF PULSE: 10ms SHOCK TIMES: 3 TIMES IN EACH OF X, Y, Z AXIS. (TOTAL 9 TIMES)	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±5.0%
8	HUMIDITY TEST	TEMPERATURE: 40°C±2°C HUMIDITY: 90% ~ 95%RH DURATION: 96±4 HOURS.	DEVIATION RELATIVE TO INITIAL VALUE: L: WITHIN ±5.0%

## 7. REMARK

\* ENCLOSING CONDITION OF COILS.



ELECTRODE SIDE "F"

\* CARRIER TAPE PACKING SPECIFICATION IN DETAIL KB-CTR014.

\* RECOMMENDED REFLOW CONDITION BASES ON STD-001NP.